FIGURE 1

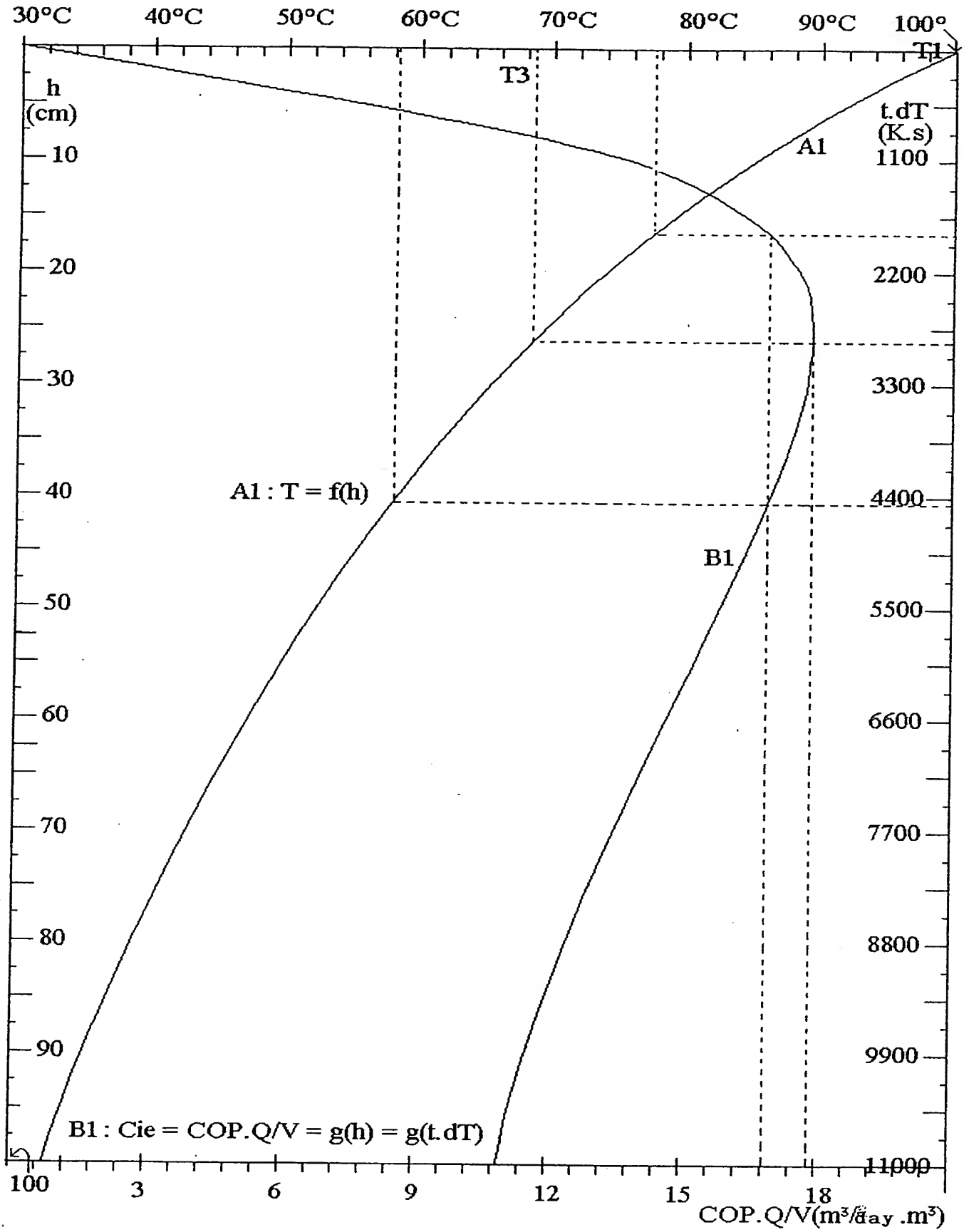

30°C
40°C
50°C
60°C
70°C
80°C
90°C
100°
T1
T3
h
(cm)
t.dT
(K.s)
A1
10
20
30
40
50
60
70
80
90
1100
2200
3300
4400
5500
6600
7700
8800
9900
11000
A1 : T = f(h)
B1
B1 : Cie = COP.Q/V = g(h) = g(t.dT)
100
3
6
9
12
15
18
COP.Q/V(m³/day .m³)

FIGURE 2

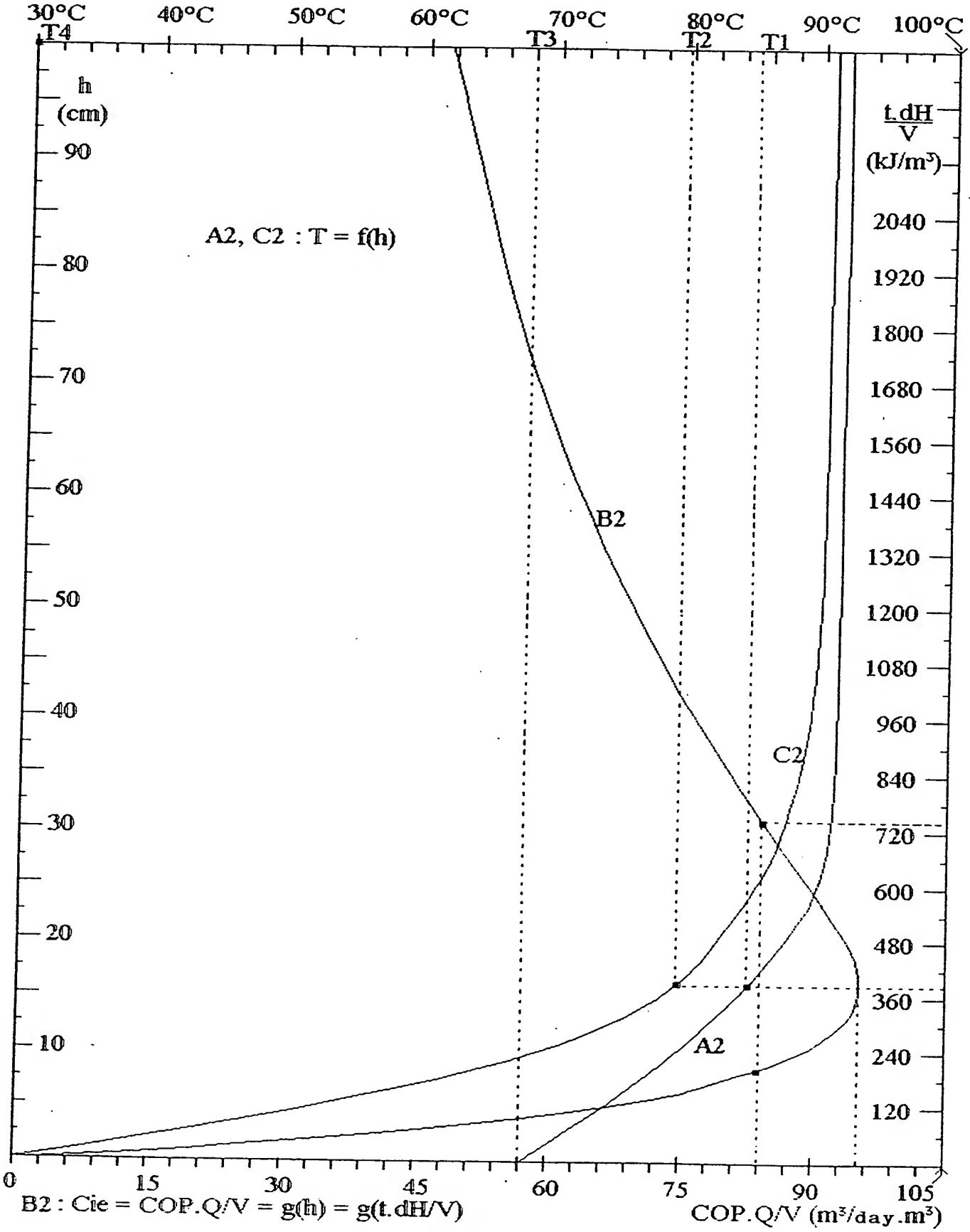

30°C
40°C
50°C
60°C
70°C
80°C
90°C
100°C
T4
T3
T2
T1
h
(cm)
t.dH
V
(kJ/m³)
A2, C2 : T = f(h)
B2
C2
A2
90
80
70
60
50
40
30
20
10
2040
1920
1800
1680
1560
1440
1320
1200
1080
960
840
720
600
480
360
240
120
0
15
30
45
60
75
90
105
B2 : Cie = COP.Q/V = g(h) = g(t.dH/V)
COP.Q/V (m³/day.m³)

FIGURE 3

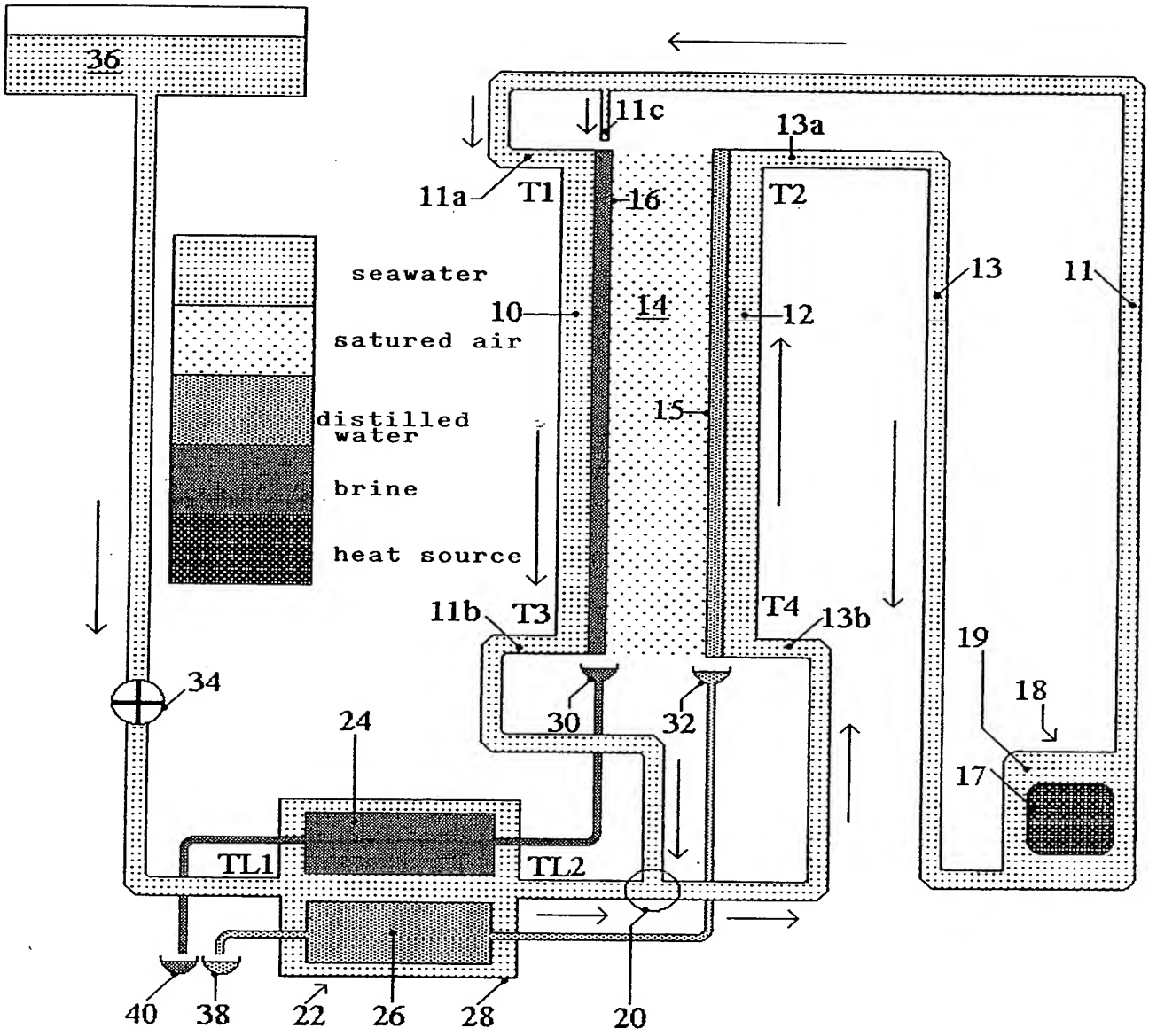
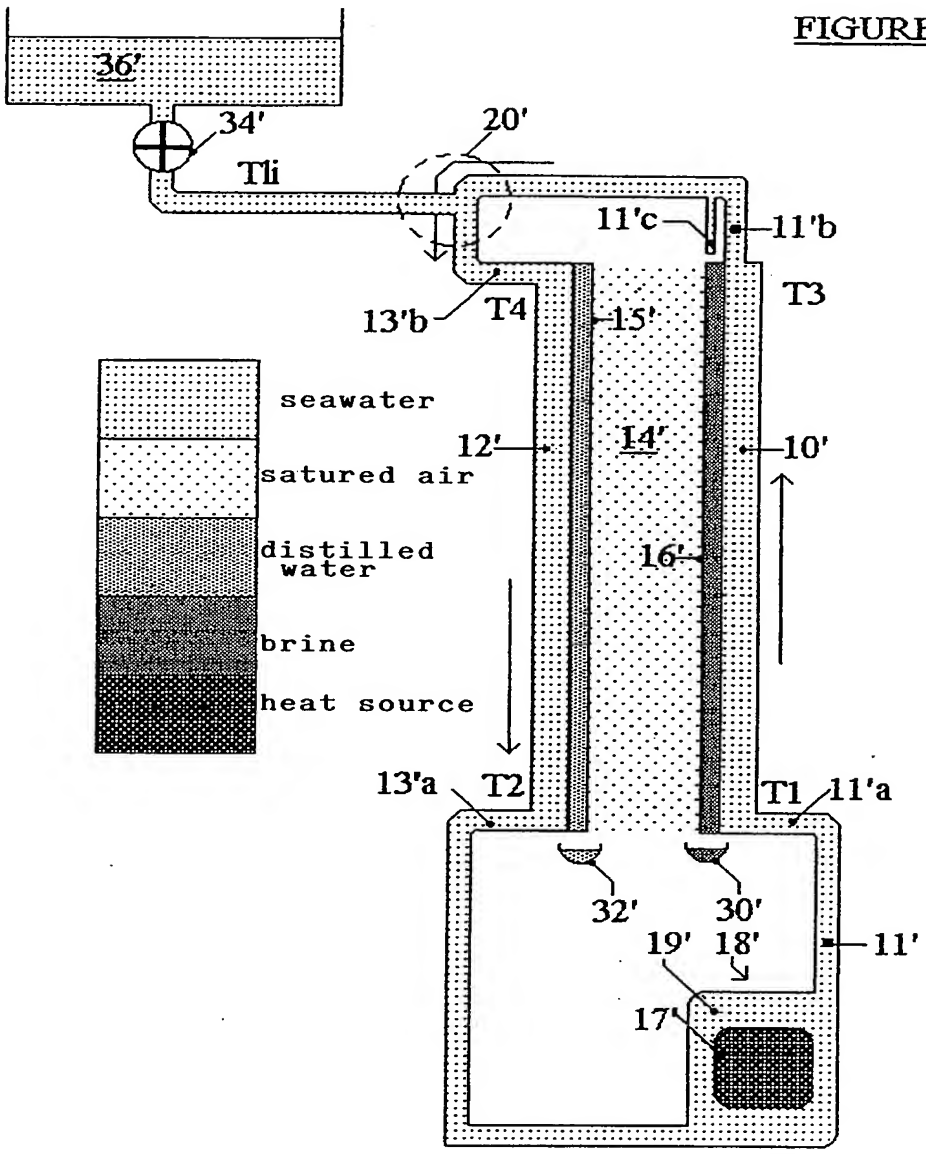

36
11c
13a
11a
T1
16
T2
seawater
10
14
12
13
11
satured air
distilled water
15
brine
heat source
11b
T3
T4
13b
19
34
18
30
32
24
17
TL1
TL2
40
38
22
26
28
20

FIGURE 4


36'
34'
Tli
20'
11'c
11'b
T3
13'b
T4
15'
seawater
12'
14'
10'
satured air
distilled water
16'
brine
heat source
13'a
T2
T1
11'a
32'
30'
19'
18'
11'
17'

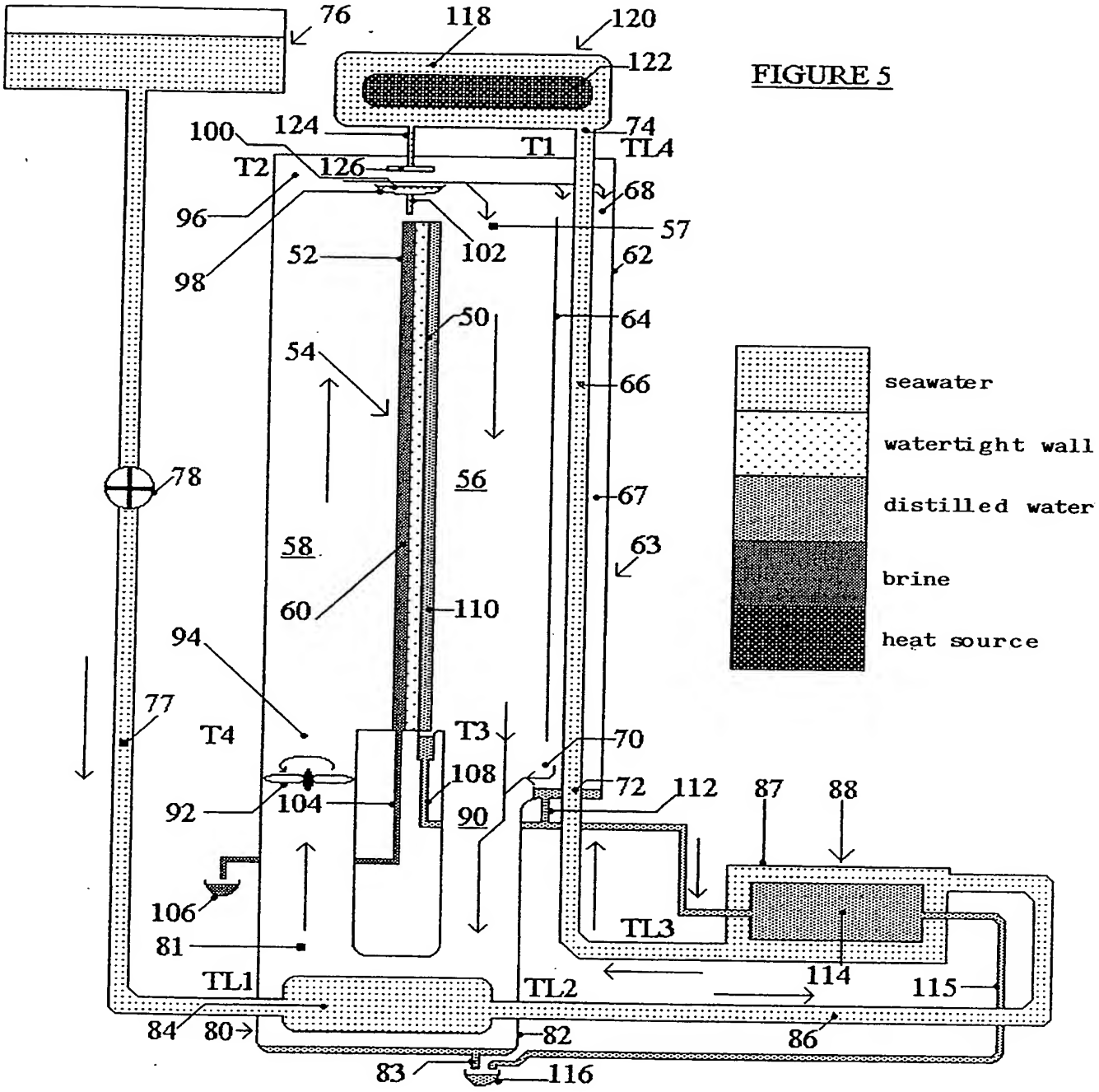

76
118
120
122
124
100
T1
74
TL4
T2
126
68
96
57
102
52
62
98
50
64
54
66
seawater
watertight wall
distilled water
brine
heat source
78
56
67
58
63
60
110
94
77
T4
T3
70
108
72
112
87
88
92
104
90
106
TL3
81
TL1
TL2
114
115
84
80
82
86
83
116

FIGURE 5

FIGURE 6

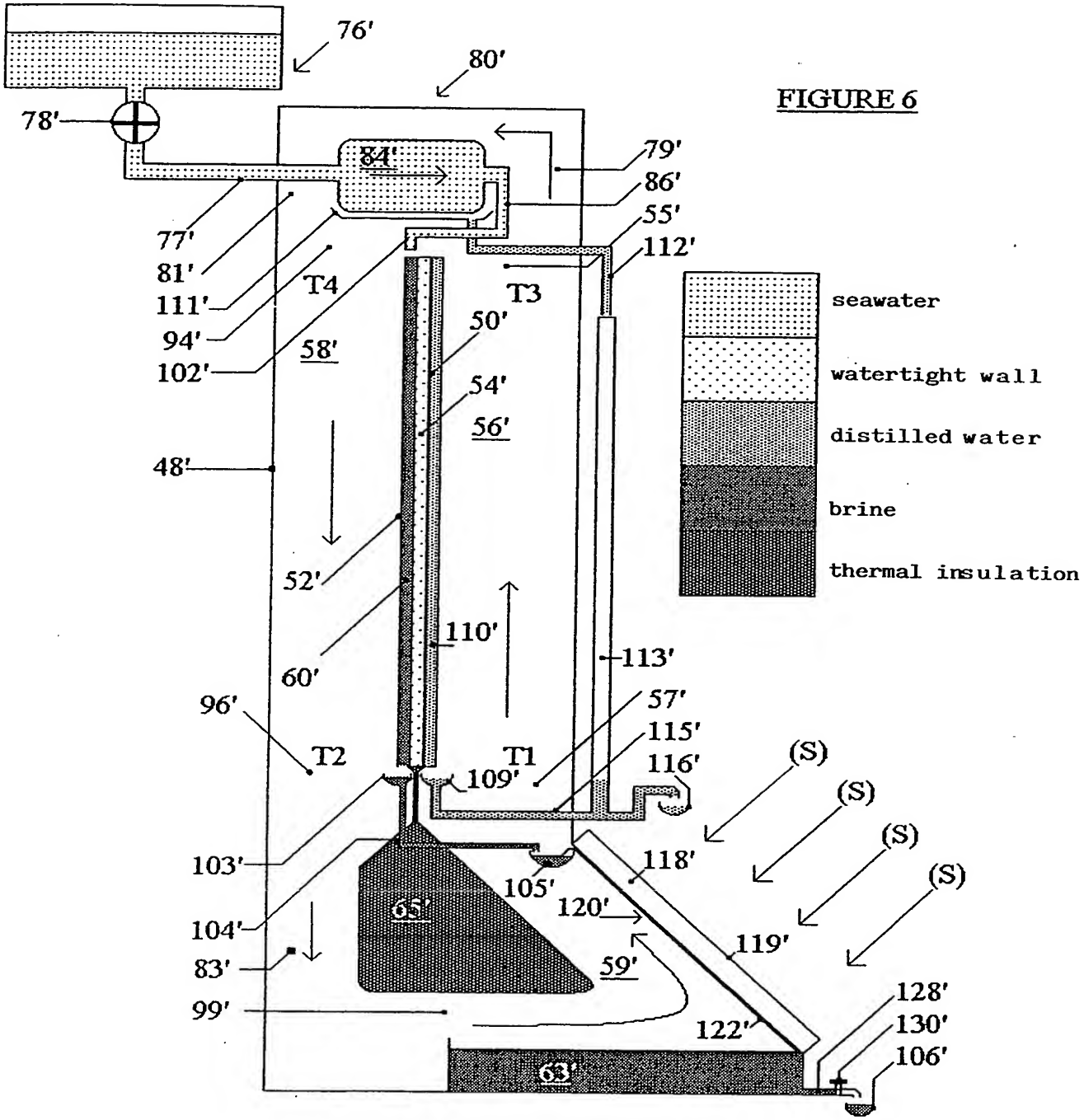
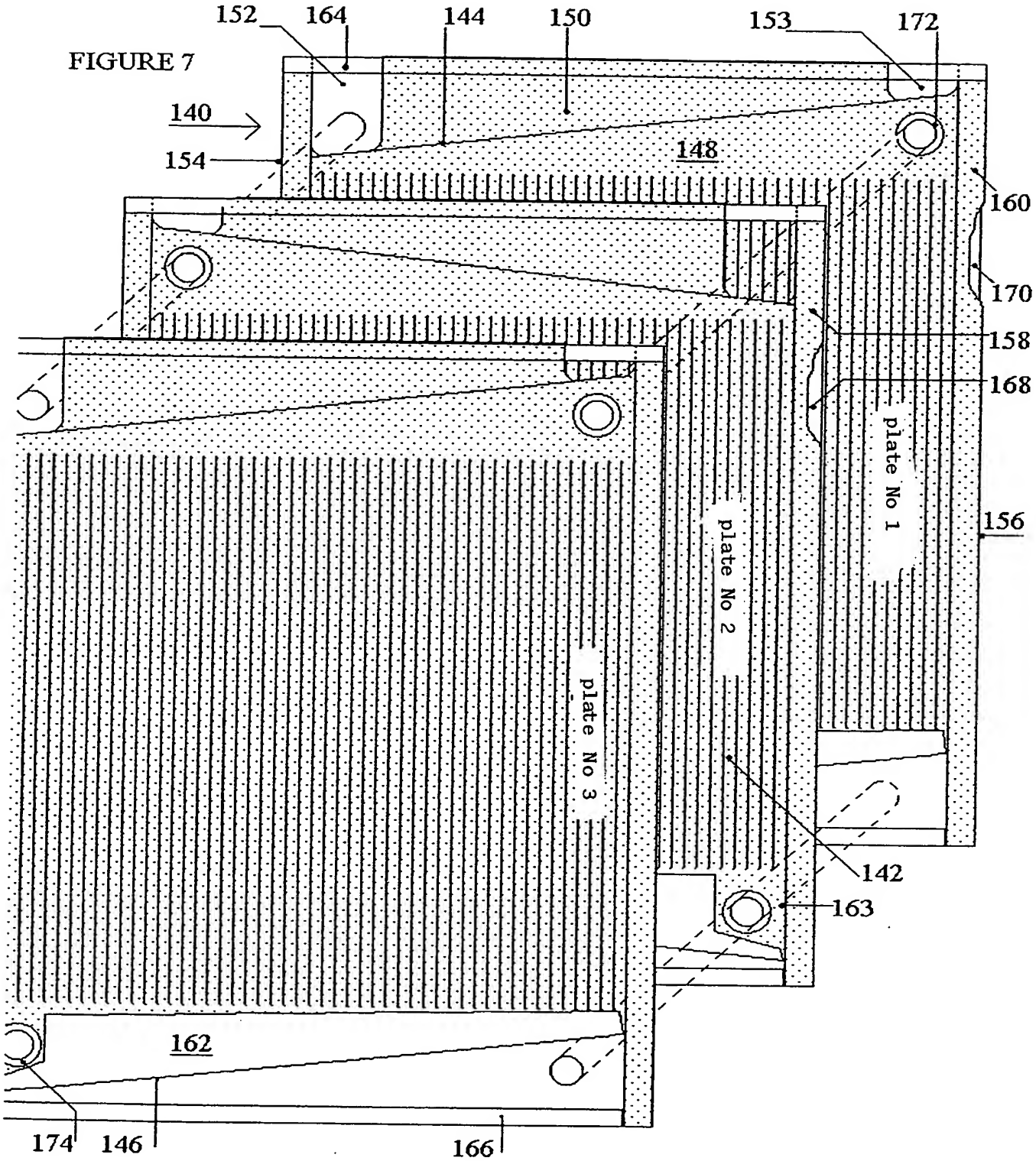

76'
80'
78'
84'
79'
86'
55'
112'
77'
81'
111'
94'
102'
T4
T3
58'
50'
54'
56'
48'
52'
60'
110'
113'
96'
57'
115'
T2
T1
109'
116'
(S)
(S)
(S)
(S)
103'
118'
105'
104'
65'
120'
119'
83'
59'
99'
128'
130'
122'
106'
63'
seawater
watertight wall
distilled water
brine
thermal insulation

FIGURE 7


152
164
144
150
153
172
140
154
148
160
170
158
168
plate No 1
156
plate No 2
plate No 3
142
163
162
174
146
166

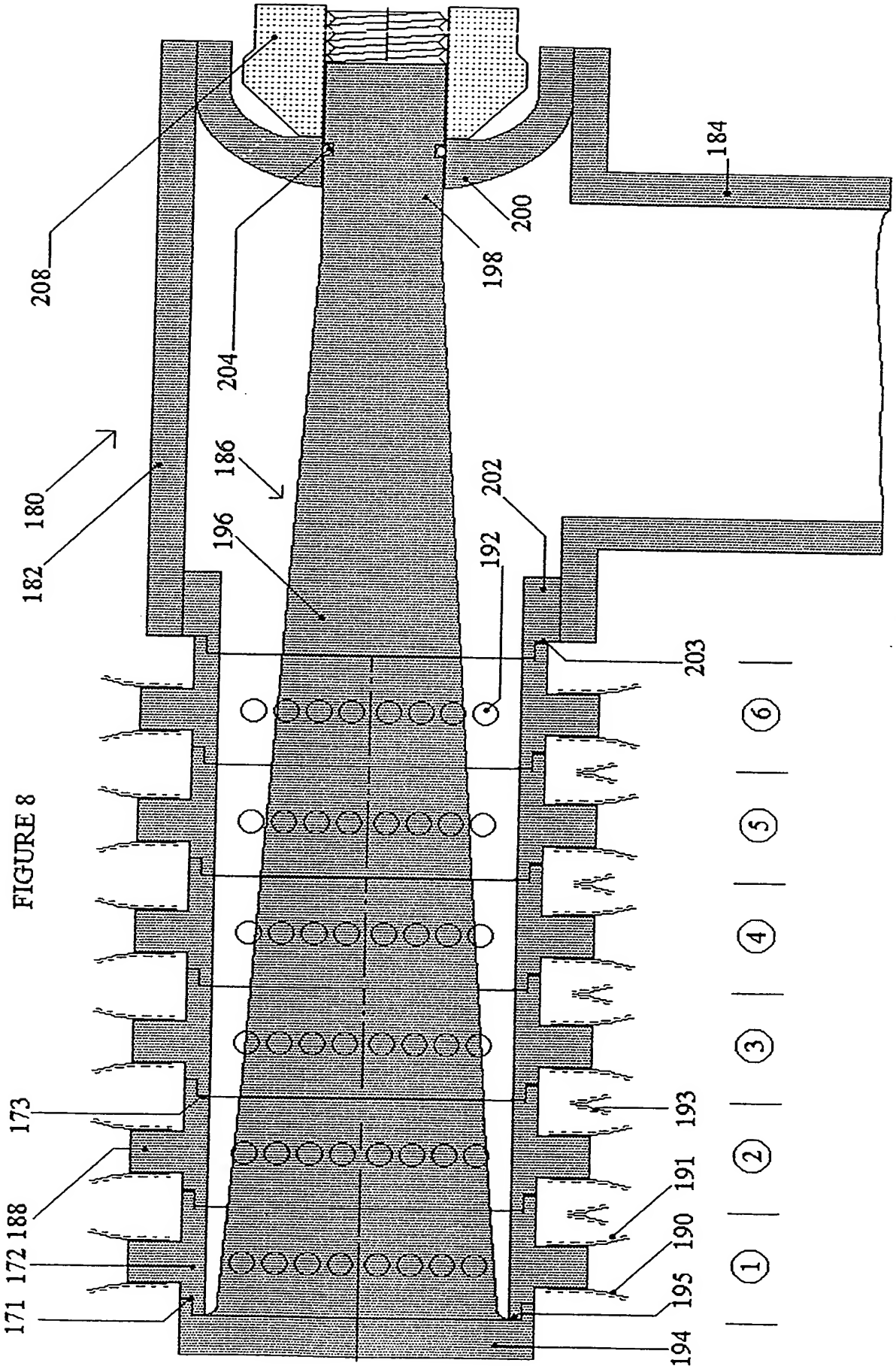

208
204
198
200
184
180
182
186
196
202
192
203
173
188
172
171
193
191
190
195
194
1
2
3
4
5
6

FIGURE 8

FIGURE 9

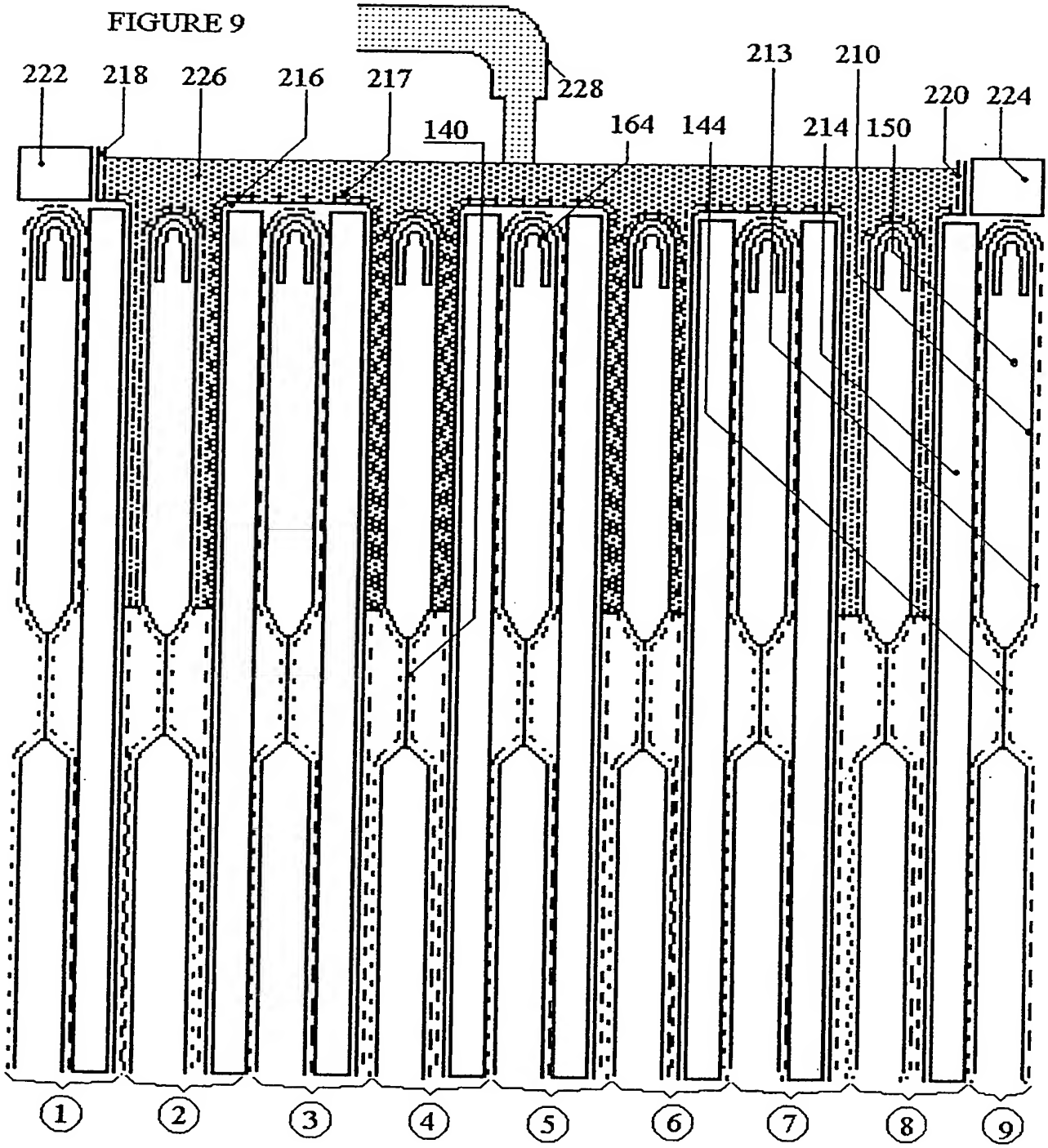
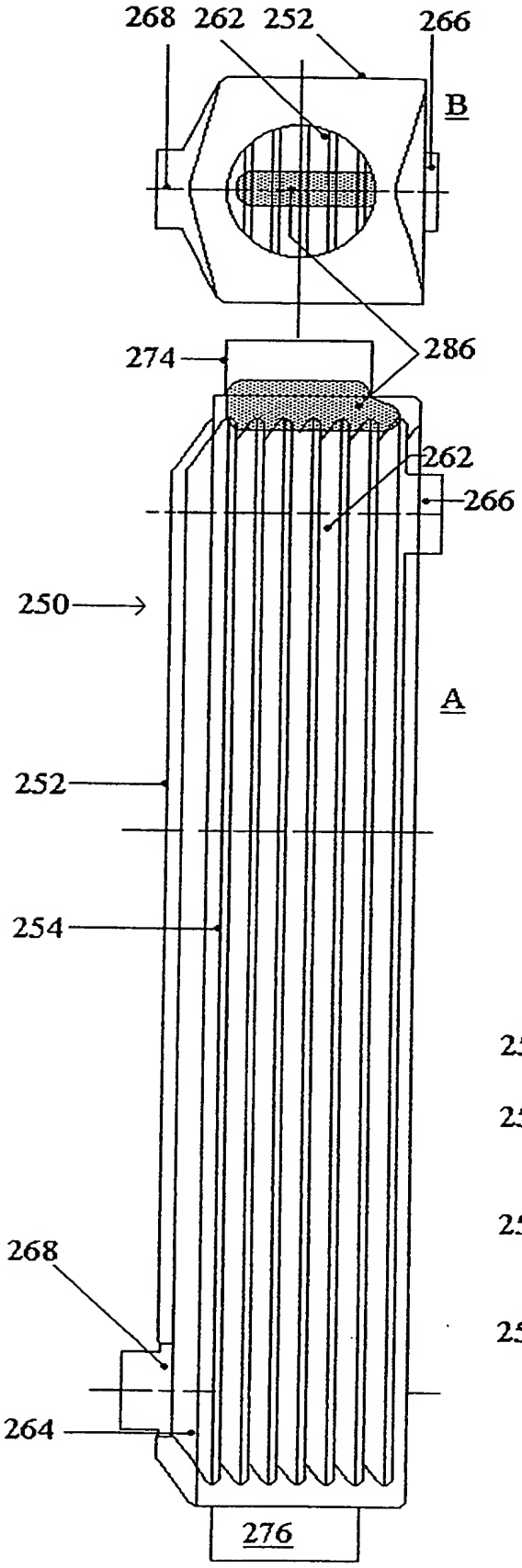
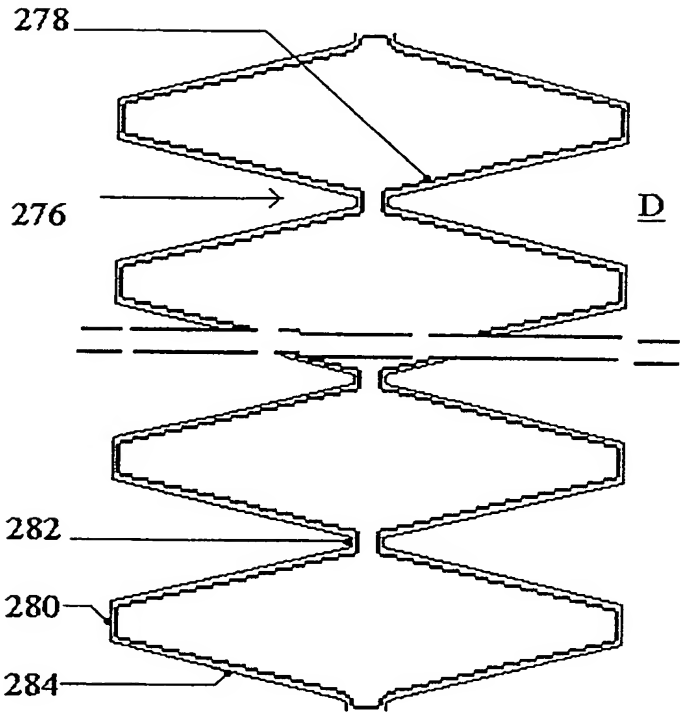

222
218
226
216
217
140
228
164
144
213
210
214
150
220
224
1
2
3
4
5
6
7
8
9

FIGURE 10


268
262
252
266
B
274
286
262
266
250
A
252
254
268
264
276


278
276
D
282
280
284

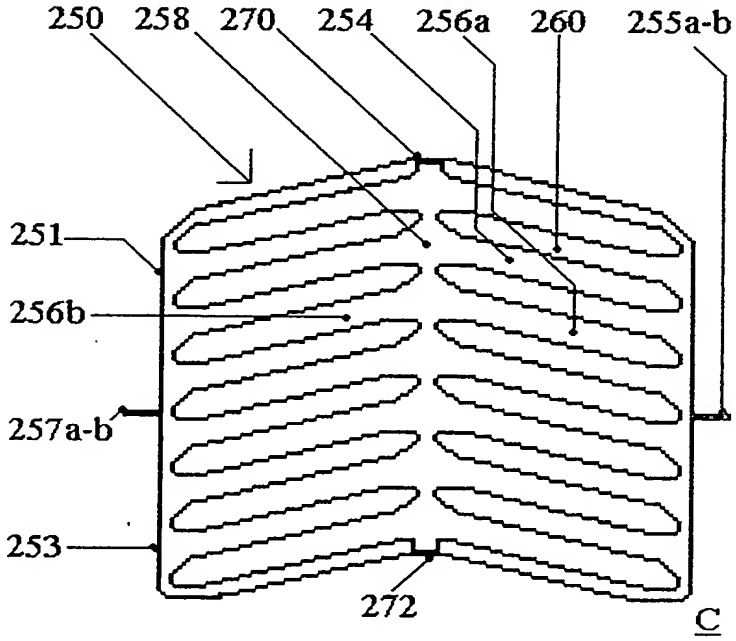
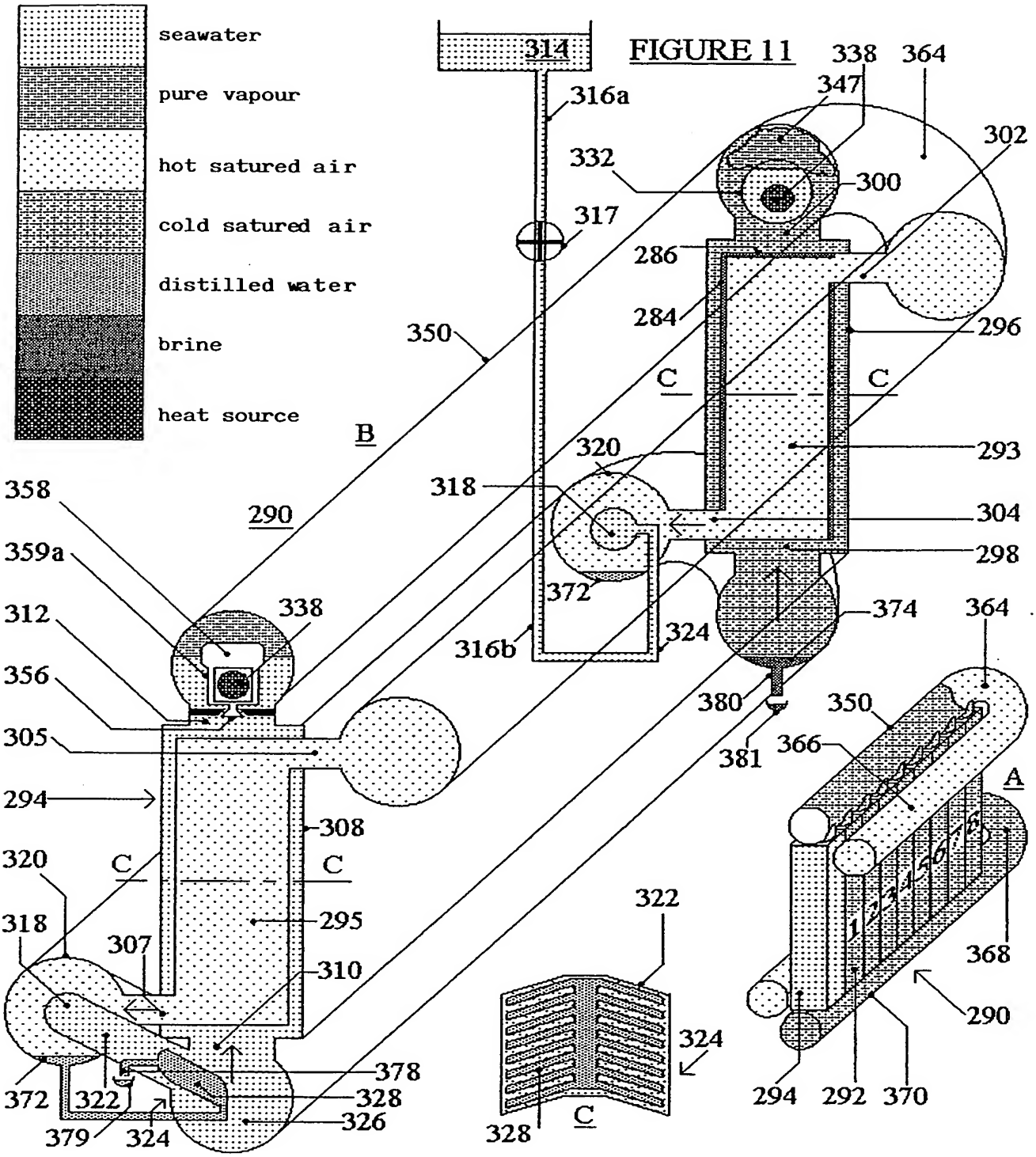

250
258
270
254
256a
260
255a-b
251
256b
257a-b
253
272
C

FIGURE 11


seawater
pure vapour
hot satured air
cold satured air
distilled water
brine
heat source
314
316a
316b
317
318
320
322
324
326
328
332
338
347
364
300
302
284
286
296
293
304
298
372
374
380
381
350
B
C
290
358
359a
312
356
305
294
308
295
307
310
378
379
366
A
368
292
370

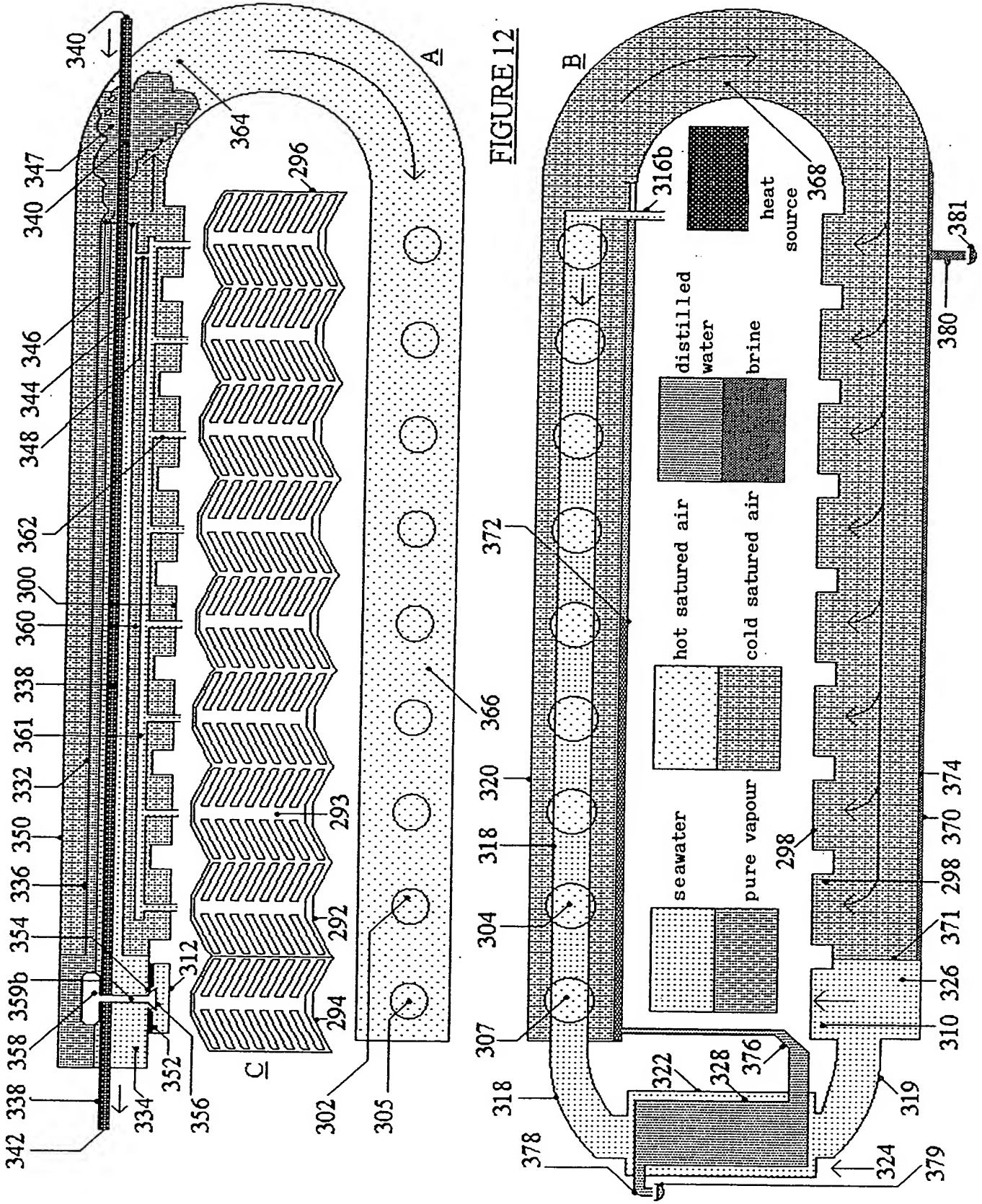
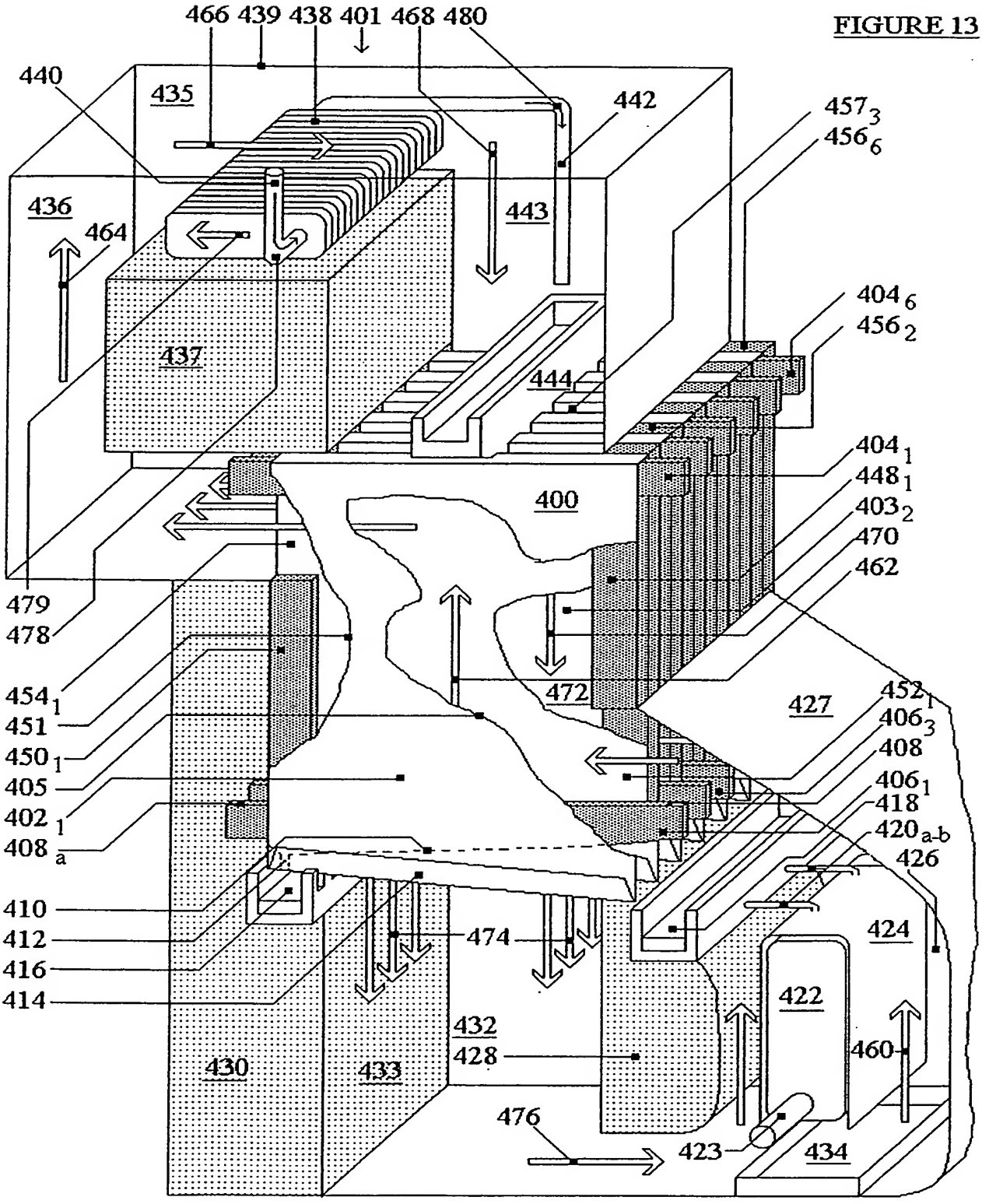

A
B
C
340
347
364
296
346
344
348
362
300
360
338
361
332
350
336
354
359b
358
312
352
356
334
342
338
293
292
294
302
305
366
372
316b
368
heat source
distilled water
brine
hot satured air
cold satured air
seawater
pure vapour
298
304
318
320
307
322
328
376
378
324
379
319
310
326
371
374
370
381
380

FIGURE 12

FIGURE 13


466 439 438 401 468 480
440
435
442
457_3
456_6
436
464
443
404_6
456_2
437
444
404_1
448_1
403_2
400
470
462
479
478
454_1
451
450_1
405
402_1
408_a
472
427
452_1
406_3
408
406_1
418
420_{a-b}
426
410
412
416
414
474
424
422
432
428
460
430
433
476
423
434